

Notice of Allowability

Application No.

10/779,963

Examiner

Audrey Y. Chang

Applicant(s)

HOLLER, FRANK

Art Unit

2872

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to amendment filed on July 21, 2006.
2. ☒ The allowed claim(s) is/are 1-30.
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☒ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO/SB/08),
Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit
of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☐ Interview Summary (PTO-413),
Paper No./Mail Date _____
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____

EXAMINER'S AMENDMENT

Remark

- This Office Action is in response to applicant's amendment filed on July 21, 2006, which has been entered into the file.
- By this amendment, the applicant has amended claims 1-2, 9-11, and 21-22.
- Claims 1-30 remain pending in this application.

Examiner's Amendment

Authorization for this examiner's amendment was given in a telephone interview with Mr. Paul Onderick (Reg. No. 45,354) on September 8, 2006.

The application has been amended as follows:

Claim 3, line 2, insert --variable-- before "focusing", delete "device" after "focusing" and insert --unit--.

Claim 10, line 3, insert --variable-- before "focusing", line 4, delete "a" and insert --said-- before "measurement module".

Claim 20, line 2, delete "a" and insert --said-- before "measurement", line 5 delete "a" and insert --said-- before "control unit".

Claim 21, line 21, delete "a" and insert --said-- before "control unit".

Claim 28, delete "11" insert --21--.

Claim 30, line 4, delete "a" and insert --said autofocus-- before "sensor", line 5, before "sensor" insert --autofocus-- , line 6, insert --autofocus-- before "sensor" and delete "a" and insert --said-- before "control unit", and line 7, insert --autofocus-- before "sensor".

Reasons For Allowance

1. The following is an examiner's statement of reasons for allowance: of the prior art references considered, none has disclosed a display device for *generating an image* perceived as a viewer as being *superimposed* on an *object* located in an object plane wherein the device comprises an image generating unit and a *superimposing unit* having a *first and second beam splitters* for deflecting the image light from the image generating device to the second beam splitter then to the viewer and a *measurement module* or an *auto-focus sensor* for receiving light from the object located at object plane that passes through the first beam splitter for sensing the object located at the object plane and its sharpness (as recited in claims 11 and 21). The display device further comprises a *variable focusing unit* having a *variable refractive index lens* located in the optical path between the image generating device and the viewer and a *control unit* for controlling the refractive index of the lens by applying variable electrical signal to therefore vary the focusing power of the lens in response to the signal from the measurement module. This allows the *image plane* from the image generating device and the *object plane* of the object *coincide* and the object and the image from the image generation device are seen simultaneously *equally focused* when the user accommodates to focus the object.

The prior art reference US patent issued to Spitzer (PN. 5,886,822) teaches an image display device that is capable of generating an image that is superimposed on an environment. However this reference fails to provide a measurement module or an auto-focus sensor, a variable refractive index lens and a superimposing unit that based on sensed environment object (i.e. focused object), the object and the generated image whose object plane and image plane are coincide and are seem equally focused simultaneously.

The prior art reference US patent issued to Ferguson (PN. 6,379,009) teaches a projection display for projecting an image that is overlaid on an actual view of an object, however this reference does not teach to include a measurement module or an auto-focus sensor, a variable index lens and a

Art Unit: 2872

superimposing unit that based on the sensed environmental object (i.e. focused object), the object and the projected image whose object plane and image plane are coincide and are seem equally focused simultaneously.

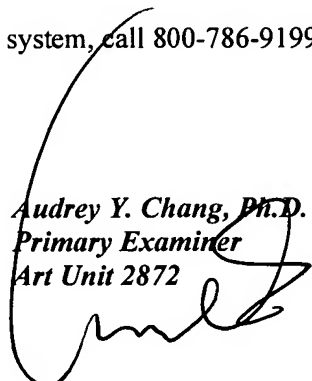
Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Audrey Y. Chang whose telephone number is 571-272-2309. The examiner can normally be reached on Monday-Friday (8:00-4:30), alternative Mondays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Drew Dunn can be reached on 571-272-2312. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Audrey Y. Chang, Ph.D.
Primary Examiner
Art Unit 2872



A. Chang, Ph.D.